AMENDMENTS TO THE SPECIFICATION

Please amend the paragraph beginning at page 24, line 5, as follows:

Alternatively, the spacers of this invention may be provided with a tool engaging hole for insertion of a tool, such as the tool depicted in FIG. 9. According to another specific embodiment depicted in FIGS. 35 and 36, the spacer 170 includes an anterior wall 171 defining a tool engaging hole 174. In a most preferred embodiment, the tool engaging hole 174 is threaded for receiving a threaded implanting tool such as depicted in FIG. 37. The inserter 220 includes a handle portion 221 with knurlings or other suitable patterns to enhance manual gripping of the handle. A shaft 222 extends from the handle 221. The distal end 223 of the shaft 222 includes a tip 225 which mates with the tool engaging hole 174. Preferably the tip 225 and tool engaging hole 174 have corresponding mating threads 226, 178. Where the tool engaging hole 174 is defined in a curved wall as shown in FIG. 35, the distal end 223 of the shaft 222 preferably includes a curved portion 224 ~~(not shown)~~ that conforms to the curved anterior surface of the spacer. The inserter 220 also preferably includes a T-handle 228 for spacer control and positioning. Preferably the inserter 120 includes means for rotating the threaded tip 225. In FIG. 37, the knob 230 is engaged to the tip 225 via an inner shaft extending through an internal bore (not shown) in the handle 221 and shaft 222. The tip 225 is preferably at the end of the inner shaft with the inner shaft rotatingly mounted within the handle 221 and shaft 222.

Please amend the paragraph beginning at page 25, line 23, as follows:

Any suitable load bearing member which can be synergistically combined with an osteogenic composition is contemplated. Other potential load bearing members include allograft ~~crock~~ Crock dowels (FIG. 43), tricortial dowels (FIG. 44), button dowels (FIG. 45) and hybrid allograft button-allograft crock dowels (FIG. 46).

Please amend the paragraph beginning at page 37, line 11, as follows:

Static testing was performed to assure that the dowels were able to withstand maximum ~~physioloc~~ physiologic loading, of at least 10,000 N, the maximum expected lumbar load.

Eighteen (18) mm outer diameter, frozen threaded cortical dowels 40 were obtained from the University of Florida Tissue Bank and thawed for testing with an axial test fixture 300. Four (4) samples of the threaded cortical dowel were inserted into two prepared plastic (polyacetal polymer) blocks 301, 302, having matching geometry with the threaded cortical dowels 40 as shows in FIGS. 50-52. The plastic blocks 301, 302 were attached to metallic blocks ~~301, 302~~ 303, 304 to ensure uniform loading across the dowel 40. A disc height H of 9 mm was used for the testing. An axial load P was applied via a servohydraulic test machine to the blocks 301, 302, 303, 304 at a rate of 25 mm/min. until failure of the dowel 40. The load-displacement curves were recorded.

Please amend the paragraph beginning at page 39, line 3, as follows:

Based on the previously discussed physiologic loading values, an average every day loading value ~~in~~ is expected to be a fraction of the maximum values and is estimated at approximately 3,200 N. This typical loading value can then be used to assess the fatigue performance of the various interbody fusion alternatives. For the threaded cortical dowel, runout was achieved at a level of 30% of the maximum static load. That is, a minimum of 2 samples reached 5 million cycles at an applied load of 7,420 N as shown in FIG. 56. This value is well above the average loading value of 3,200 N.

Please amend the paragraph beginning at page 39, line 26, as follows:

The dowels were placed into pre-tapped plastic (polyacetal polymer) blocks 311, 312. The plastic blocks 311, 312 are affixed to recessed pockets 313, 314 in the upper 315 and lower 316 plates of the metal test fixture ~~318~~ 310. Vertical loads L are applied to generate the flexion-extension bending moments. Cyclic compressive loads are applied, and a bending moment is generated by the 7.6 cm loading arm.

Please amend the paragraph beginning at page 41, line 24, as follows:

3. The dowels are able to resist maximum bending loads, providing for a substantial safety factor in ~~satic~~ static loading and demonstrating 5 million cycle runout at a value above the maximum expected bending loads.

Please amend the paragraph beginning at page 43, line 4, as follows:

b. Add 0.700mL canine ~~blook~~ blood to a sterile 1.5 mL ~~eppendorf~~ Eppendorf tube.

Please amend the paragraph beginning at page 43, line 20, as follows:

c. Draw 0.550mL of blood from the tube and place into a second ~~eppendorf~~ Eppendorf tube.

Please amend the paragraph beginning at page 44, line 21, as follows:

The implanted compositions were evaluated radiographically and effectiveness was tested using biomechanical shear testing or push-out strength. Five mm thick sections were obtained for the push-out tests by making a first cut 5 mm from the lateral end of the metal implant and a second cut 5 mm from the first ~~this~~ cut. This resulted in three sections per bone specimen with the exception of one specimen which yielded four sections due to repositioning of the bone block. The biomechanical tests were completed using a computer-linked ~~servohaudraulic~~ servohydraulic materials tester.

Please amend the paragraph beginning at page 45, line 13, as follows:

Push-out (compression) was achieved using a rate of 0.5 mm/sec. All specimens appeared to fail at the graft-metal interface. All of the two week specimens could be pushed ~~our~~ out easily by finger-touch or by gravity alone. Push out testing does not appear to be an adequate parameter for comparison of the treated vs. un-treated groups at this time period. Specimens from the treated animals at the 4 week time period were clearly superior to the untreated specimens as shown in the table below.